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THE EPILEPTIC

The criminal classes contain a considerable portion of epileptics and other persons of instable, emotional temperament, subject to nervous explosions that burst out at intervals and relieve the system . . . in all cases it [epilepsy] is a frightful and hereditary *disfigurement of humanity.*

—Sir Francis Galton[1]

In 1938, when I came to the United States, there were 13 epileptic colonies in the country, housing tens of thousands of inmates. Yet, neither the 15th edition (1987) of the *Encyclopaedia Britannica* nor current textbooks of medicine, neurology, or psychiatry even mention epileptic colonies.[2] Save for some historians of medicine, hardly anyone today has heard of an epileptic colony. And who remembers that, as recently as the 1950s, the U.S. Immigration and Nationality Act stipulated that "Aliens afflicted with . . . epilepsy . . . shall be excludable from admission into the United States"?[3]

A BRIEF HISTORY OF EPILEPSY

Because of its dramatic symptoms—loss of consciousness, convulsions, tongue-biting, and other accidental injuries—epilepsy is one of

the oldest recognized diseases. It is a relatively common ailment, affecting 1 to 2 percent of the population.

Like many diseases, epilepsy may be mild, requiring no treatment or easily controlled with medication, severe and difficult to control, or even fatal. Although Hippocrates attributed the disease to natural causes, that view proved to be premature. For millennia, people preferred to believe that seizures were caused by deities or demons and regarded the disease as either sacred or accursed.

From Possession by Demons to Possession by Madness

The demonic origin of epilepsy, accepted by the Gospel writers, meant that its cause was possession, and hence its proper treatment was exorcism by holy men skilled in the practice of casting out devils. Jesus regularly engaged in this practice:

> And when they came to the crowd, a man came up to him and kneeling before him said, "Lord, have mercy on my son, for he is an epileptic and he suffers terribly; for often he falls into the fire, and often into the water. And I brought him to your disciples, and they could not heal him." And Jesus answered, "O faithless and perverse generation. . . . Bring him here to me." And Jesus rebuked him, and the demons came out of him, and the boy was cured instantly.[4]

When the religious explanation of epilepsy was replaced by the medical explanation of it, the belief that the disease is due to possession was replaced by the belief that it is due to madness. But madness was not so easily cast out. Indeed, the first tangible result of the medicalization of epilepsy was that suffering from the disease became a major social handicap. Only after World War II did physicians change their attitude toward the epileptic, from demeaning him as a defective dependent, to respecting him as an individual with the same rights and responsibilities as anyone else. To be sure, not all experts on epilepsy agree with this thumbnail sketch. For example, William G. Lennox, a professor of neurology at Harvard and a world-renowned authority on epilepsy, declared: "The emancipation of the epileptic by physicians began some three hundred years ago and has proceeded with increasing success."[5]

The Physician and Epilepsy

Modern medicine begins in the nineteenth century, with the study of the structure and function of the human body, in health and disease. In practice, this meant the study of normal and pathological anatomy and

physiology, the clinical examination of sick patients, and the post-mortem study of cadavers. Examination of the brains of persons dying from nervous diseases, carried out mainly by British and French pathologists, demonstrated certain connections between abnormal brain structures and functions (brain diseases) and abnormal behaviors (some of which were considered "diseases of the nervous systems," others, "nervous diseases"). Convulsions or so-called grand mal seizures were among the earliest maladies identified as the manifestations of neurological malfunction.

The first physicians to observe patients suffering from epilepsy were general practitioners who knew their subjects as persons, not as specimens. They concluded that, in the main, epileptics were not seriously disabled. Sir John Russell Reynolds, the most prominent nineteenth-century English physician writing on epilepsy, stated: "Epilepsy does not necessarily involve any mental change . . . considerable intellectual impairment exists in some cases; but that is the exception, not the rule . . . ulterior mental changes are rare."[6] When the psychiatrist looked at the epileptic, he saw a very different phenomenon.

The medical stigmatization and persecution of the epileptic may be dated from 1873, when Sir Henry Maudsley, the acknowledged founder of British psychiatry, renamed epilepsy "epileptic neurosis" and cast the epileptic in the role of a Frankensteinian monster. He wrote:

> [E]pileptic neurosis may exist for a considerable period in an undeveloped or masked form, showing itself not by convulsions, but by periodic attacks of mania, or by manifestations of extreme moral perversion. . . . The epileptic neurosis is certainly most closely allied to the insane neurosis. . . . A character which the insane neurosis has in common with the epileptic neurosis is that it is apt to burst out into a convulsive explosion of violence.[7]

Maudsley maintained that insane persons are biologically disposed to engage in destructive behavior, for which they are not morally or legally responsible; and that they must, therefore, be permanently incarcerated under the watchful eye of the psychiatrist.[8] His approach to epilepsy, based on commingling it with insanity, reflected this bias: "The two diseases most closely related in this way [that is, being hereditary], are insanity and epilepsy; the descendant of an epileptic parent being almost if not quite as likely to become insane as to become epileptic, and one or other of the descendants of an insane parent not infrequently suffering from epilepsy."[9]

Maudsley had not a shred of evidence to support the claim that epilepsy and insanity are closely related diseases. But he had the power of his authority—unmatched and uncontested at that time, not only in

the English-speaking world but in all advanced countries—and he used it to incriminate the epileptic, along with the insane, as a crazed killer:

> I shall now, then, proceed to point out what I conceive to be the most important conditions which are precedent of an outbreak of insane homicidal impulse. These are the *insane neurosis* and the *epileptic neurosis* in both of which the tendency is to convulsive action. . . . It is a remarkable and instructive fact that the convulsive energy of the homicidal impulse is sometimes preceded by a strange morbid sensation, beginning in some part of the body and mounting to the brain, very like that which, when preceding an attack of epilepsy, is known in medicine as the *aura epileptica*.[10]

This melange of metaphors is typical of Maudsley's rhetoric in the service of maligning the madman as a menace. Note the treacherous use of the oxymoron, "convulsive action." Properly speaking, we call the involuntary movement of a *muscle* a reflex, convulsion, or seizure. Whereas action is the name we attach to the deliberate, voluntary movement of a *person*. This is why we do not hold people morally or legally accountable for reflex movements, but do hold them accountable for actions. I shall not belabor the obvious, namely, that the evidence for Maudsley's assertions is purely analogical or rhetorical. In fact, Maudsley's epileptic killer was a creature who, by definition, could not commit a murder. He was merely an innocent bystander who happened to inhabit a body filled with "the convulsive energy of the homicidal impulse." In the scriptural view, the epileptic is possessed by demons. In Maudsley's view, he is possessed by "homicidal impulses." This was not medical progress, replacing superstition with science. It was medical propaganda, replacing clerical with clinical superstition.*

By the end of the nineteenth century, the view that epileptics are potential criminals—specifically, that they are afflicted with an irresistible urge to commit violent acts—became psychiatric dogma. Hungry for the spooky and the sensational, journalists and the public eagerly embraced this view, which still lingers in the back of the popular mind. The Italian psychiatrist, Cesare Lombroso (1836–1909) became world famous largely on the grounds of popularizing this nonsense.[11]

The Treatment of Epilepsy

At the end of the nineteenth century, physicians did not yet understand that the proximate cause of an epileptic seizure was an abnormally

* From the patient's point of view, Maudsley's treatment of epilepsy by lifelong imprisonment rather than exorcism was hardly an improvement.

heightened excitability of the cerebral cortex. However, they knew from experience that sedatives, such as opium, were useful for controlling convulsions. In 1835, potassium bromide was discovered and was soon employed in the treatment of insomnia. About 20 years later, Sir Charles Locock learned of a person who, after medicating himself with bromides, complained that the drug virtually eliminated his sexual desire. Like every knowledgeable person at that time, Locock believed that masturbation caused epilepsy and reasoned that potassium bromide was an "anaphrodisiac" that might be an effective treatment for the disease. He tried it on 14 patients and had good results in 13.[12] The drug treatment of epilepsy had arrived.

For the next half-century, bromide was the standard treatment for epilepsy. Its use, however, left much to be desired, as adequate suppression of seizures often required doses large enough to cause sedation, interfering with normal existence. The next advance in the treatment of epilepsy occurred in 1903, with the discovery of barbiturates. The long-acting barbiturate, phenobarbital, proved to be especially helpful, enabling many epileptics to take enough of the drug to reduce the frequency of seizures without making them too sleepy in the bargain. Phenobarbital remained the drug of choice for treating seizure disorders until 1938, when it was displaced by Dilantin, the first in a class of drugs with specifically anticonvulsant properties. Today, several anticonvulsant drugs are available for treating seizure disorders.

COLONIZING THE EPILEPTIC

In 1872, an new type of institution was established at Bielefeld, in Germany. Resembling the large public mental institutions popular at the time, the Bielefeld facility was devoted to housing and caring for epileptics. It soon attracted the attention of American psychiatrists, who began to agitate for the construction of similar institutions in the United States. Their efforts were successful. In the 1890s, legislatures in the more populous states appropriated funds for the construction of so-called epileptic colonies.

A Brief History of American Epileptic Colonies

Prior to the end of the nineteenth century, most epileptics lived like other people, with their families and relatives. Insane epileptics were confined in madhouses, like other insane persons. By the time the century ended, epileptics were slaves, and psychiatrists masters, in state facilities popularly known as "epileptic colonies." The institutions were so

called because they were run largely by the inmates themselves, who received little or no pay. In those bygone days, such an arrangement was considered to be generous. Most of the inmates were poor, unemployed, or unemployable. They received room and board and medical care, gratis. Like grateful children, the least they could do was help their "parents."

The first American institution for epileptics, initially called the "Asylum for Epileptics and Epileptic Insane," was established at Gallipolis, Ohio, in 1891. Before the first inmate was admitted in 1893, the institution's name was changed to the "Ohio Hospital for Epileptics."[13] Thus began the American experience with storing epileptics, allegedly because they had epilepsy, ostensibly in order to treat them.

I want to remark here briefly on the history of a famous epileptic colony in upstate New York. Established at Sonyea, in Livingston County, this institution's name was also changed before it opened its doors in 1894, from Sonyea Colony to Craig Colony, in honor of Oscar Craig of Rochester, then the president of the State Board of Charities.[14] Two years later, the facility was renamed the Craig Colony for Epileptics. After 1920, renamed once more the Craig Colony, it became one of the largest and best known epileptic colonies in the United States, housing about 1,600 inmates in 1928. In 1951, the facility became the Craig Colony and Hospital; in 1966, the Craig Colony School and Hospital; in 1968, the Craig State School; and in 1969, the Craig Developmental Center. This series of euphemisms reflect society's changing fashions for concealing the stigmatization and storage of epileptics, mental patients, and retarded persons.

Packaged as "therapeutic communities," the advocates of epileptic colonies directed their sales pitch to the families of epileptics, offering them a legitimate, indeed laudable, means of getting rid of their unwanted relatives. The doctors promised that the inmates would receive better treatment in the institutions than they could receive at home. Since the colonies were state facilities, the inmates were housed and fed at taxpayers' expense. Institutionalizing the epileptic thus relieved nonepileptics not only of their obligation to care for their afflicted dependents, but also of their feelings of guilt for rejecting them.

Of course, the colonists were conscious of their self-interests. They knew that with every increase in the number of persons housed in their institutions, their power and profit would increase as well. Even before the first epileptic colony in the United States opened its doors, the New York State Lunacy Commissioners declared: "There can be no question as to the desirability of the State making special provisions for epileptics of the *dependent and semidependent class, apart from the insane.*"[15] A century

earlier, physicians had gained control over lunatics. It was time to go after the nonlunatics. Epileptics were the perfect targets. "The entire question [of how best to care for epileptics] can be solved," declared the clinicians bent on colonial conquest, "by the creation of colonies, the admission to which is *not to be regulated by the mental condition of the patient.*"[16] If the mental condition of the patient was irrelevant to the business at hand, why was their care delegated to specialists in mental diseases? No respectable physician or jurist asked that question, then or later.

During the 1940s, partly as a result of the development of Dilantin, the policy of segregating epileptics began to lose its appeal. By 1950, only one epileptic colony remained, the Indiana Village for Epileptics. In 1955, it became the New Castle State Hospital.[17] Most of the buildings formerly used to store epileptics were renamed and used for storing retarded persons.

The Medico-Legal Rationalization for Epileptic Colonies

In the 1890s, epilepsy was considered to be a type of insanity. Nevertheless, epileptic colonies were not intended to be special types of insane asylums. The main reason for this was that the colonizers were eager to expand their clientele to include sane epileptics.

William Pryor Letchworth, a celebrated colonist, explained the legal procedure for storing sane epileptics as follows: "*Sane* epileptics are committed [in Ohio] by the probate judge . . . upon the application of parents, guardians, or friends."[18] Because the persons committed were considered to be sane, physicians were not associated with these commitment proceedings. Nevertheless, the committed subject was placed under the custodial care of medical professionals. Because mental patients are now incarcerated for many of the same reasons formerly used to incarcerate epileptics, Letchworth's justifications for his policies are timely and worth pondering: "Special institutions or colonies, besides benefiting the unfortunate sufferers, may be made to serve the economy of the State. . . . In colonizing epileptics, society is relieved in some measure of a dangerous element and the public safety promoted."[19]

Professional articles published during the early decades of this century reveal that the incarceration of epileptics had, in fact, nothing to do with their illness. Diagnosis and treatment were mere pretexts. Epileptics were institutionalized because they were poor, unwanted, or both. The colonizers guaranteed the success of their enterprise with the surefire formula of heads-I-win, tails-you-lose. *Insane epileptics* needed to be confined in colonies because epilepsy was best treated there. *Sane*

epileptics needed to be so confined because epilepsy was untreatable and hence the patients' best interests required their lifelong protection from the demands of normal society. "A cure of epilepsy," remarked a Scottish physician in 1906, "is not to be expected in more than about 10 per cent of those affected with this disease." This did not prevent him from proffering this remarkable reasoning for storing sane epileptics in colonies: "The purpose of the present contribution is to expose the unfortunate position of the sane epileptic, to advocate the advantages of the colony system in dealing with individuals of this class, and to indicate the need for further extension of this system."[20] Some colonizers candidly acknowledged that their goal was to remove unwanted persons from the community:

> The National government has provided for the Mute, the Negro, and the Indian—then, why not for this branch of population [epileptics], increasing as rapidly as they, and becoming yearly more inimical to national prosperity? A reservation set apart, affording facilities for agricultural pursuits as well as all the varied industries of a town, would provide an outlet for the surplus population.[21]

Despite the experts' self-contradictory rationalizations, members of the legal profession and the public eagerly embraced their claims as valid therapeutic prescriptions. At the 1903 annual meeting of the National Conference of Charities and Correction, William E. Sprattling, M.D., medical superintendent of the Craig Colony for Epileptics at Sonyea, declared:

> Epileptics cannot be cared for successfully, or even with partial success, in any other way than under the colony plan. . . . [The colonies] provide home life . . . , vocations ranging from . . . weeding the cabbage patch to the making of brick, . . . amusements and recreation . . . the highest treatment for the disease, . . . [and] segregating epileptics in colonies has a too often forgotten value in that it keeps them from reproducing.[22]

Alexander Johnson, the chairman of the Conference's official Committee, went further, pleading for the medical segregation of all "the degenerates who either physically, or morally, are so far below the normal that their presence in society is hurtful to the fellow citizens, or that their unhindered natural increase is a menace to the well being of the State."[23] Here is a partial list of the persons Johnson classified as "degenerates," fit for permanent involuntary storage:

> The chronic insane, the epileptic, the paralytic, the imbecile and idiotic of various grades, the moral imbecile, the sexual pervert, the kleptomaniac;

> many, if not most, of the chronic inebriates; many of the prostitutes, tramps, and minor criminals; many habitual paupers, especially the ignorant and irresponsible mothers of illegitimate children . . . many of the shiftless poor ever on the verge of pauperism; some of the blind, some deaf-mutes, some consumptives.[24]

EPILEPSY AND EUGENICS

By the end of the nineteenth century, the practice of medicine was solidly based on the principles of pathological anatomy and pathophysiology. Many serious illnesses—tuberculosis, syphilis, and the contagious diseases of childhood—were understood as being caused by infections with microbial agents. Others, such as feeblemindedness and dementia praecox (later renamed schizophrenia), were believed to be due to heredity. The nature and causes of many other diseases, including epilepsy, remained shrouded in mystery. Meanwhile, the condition was closely linked to idiocy (feeblemindedness) and insanity, all three of which were attributed to heredity.

Eugenics: Theory, Ideology, Politics

Sir Francis Galton (1822–1911), the father of the eugenics movement, was confident that he knew what caused epilepsy. In 1883, he wrote:

> The criminal classes contain a considerable portion of epileptics and other persons of instable, emotional temperament, subject to nervous explosions that burst out at intervals and relieve the system . . . . The highest form of emotional instability is often associated with epilepsy; in all cases it is a frightful and *hereditary* disfigurement of humanity.[25]

Though not trained as a physician, Galton was a highly educated person. He must have known that epilepsy is often the result of head injury and, in those cases at least, it is not hereditary. However, Galton was more interested in controlling epileptics, especially preventing them from reproducing, than in understanding epilepsy. His snobbish lucubrations about "race improvement" supported the movement to forcibly sterilize persons categorized as epileptic or feebleminded. He declared:

> I do not see why any insolence of caste should prevent the gifted class, when they had the power, from treating their compatriots with all kindness, so long as they maintained celibacy. But if these continued to procreate children, inferior in moral, intellectual and physical qualities, it is easy to believe the time

> may come when such persons would be considered as enemies to the State, and to have forfeited all claims to kindness.[26*]

Here Galton, who was Charles Darwin's cousin, departed from the evolutionist belief that the individuals and groups that most successfully procreate are biologically the most fit. To check the reproductive superiority of the "unfit," Galton proposed replacing "Natural Selection by other processes that are more merciful and not less effective. This is precisely the aim of Eugenics. Its first object is to check the birth-rate of the Unfit."[27] Galton was not alone. Long before the National Socialists in Germany adopted his Weltanschauung, prominent English and American scientists embraced it as their version of psychiatric humanism. Declared Elmer E. Southard (1876–1920), director of the Boston Psychopathic Hospital, professor at the Harvard Medical School, and the most revered psychiatrist of his time:

> [Psychiatry] has neglected feeble-mindedness . . . . The interest of us all must primarily be a humanitarian interest . . . it becomes a question with us, what to do with these waste materials . . . I am told that we make car wheels from the refuse of cheese factories and that all the great firms are putting research men to work on the disposal of their by-products. Let us, then, look upon the feeble-minded as in some sense by-products of society.[28]

Sterilizing the (Female) Epileptic

The title of an early twentieth-century medical journal, *The Journal of Psycho-Asthenics: Devoted to the Care, Training and Treatment of the Feeble-Minded and the Epileptic,* illustrates the doctors' dogmatic bracketing of seizure disorders with severe mental retardation. A typical article—devoted to "Surgical Sterilization as a Eugenic Measure," by Bleecker van Wagenen, Chairman of the Eugenics Section of the American Breeders' Association—advocated the sterilization of "the Feeble-minded . . . the Pauper class . . . the Criminaloids . . . Epileptics . . . [and] the Insane."[29] The author described one of his "cases" as that of "a high grade, feeble-minded, epileptic girl, twenty-three years of age. The operation (salpingectomy) was performed . . . to overcome if possible excessive masturbation, to which they [her parents] attributed the epileptic

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* I should note that, once again, the issue is not science but politics. My remarks here are intended to be a critique of state-sponsored coercions legitimized by eugenic claims and should not be construed as a criticism of eugenics as scientific inquiry or as a voluntary practice by private persons. Individuals who know they suffer from a genetically transmitted disease often abstain from procreating. That is eugenics uncontaminated by politics.

seizures which began when she was seven . . . So far as can be ascertained, the bad habit is no longer practiced."[30]

It would be a mistake to dismiss this report as a quaint relic of a bygone era. The modern reader knows, because the new science of sexology tells him, that masturbation is not a bad habit but a good method of sex therapy.[31] But the story of the sterilization of epileptics did not end there. In 1938, as the greatest experiment in eugenic sterilization in human history was gathering steam in Germany, G. B. Arnold, a physician at the State Colony in Virginia, delivered an address at the annual meeting of the American Association on Mental Deficiency, in which he enthusiastically endorsed the involuntary sterilization of epileptics. "The Virginia sterilization law," he explained, "well protects the patient's interests . . . provid[ing] that no person legally participating in the execution of the provisions of the law shall be liable therefore either civilly or criminally."[32] Twenty-two percent of Arnold's patients were diagnosed as epileptics, the rest as feebleminded. But the diagnoses were mere pretexts. The patients' most important common characteristic was poverty: "The majority of our patients . . . came from families of the definitely low class—and by 'low class' we mean families whose heads are barely eking out an existence."[33] In addition to being poor, most of the female patients displayed what Arnold calls "sex delinquencies . . . . Of these women, 404 [out of a total of 607] had been guilty of sexual immorality prior to admission."[34] Feminist historians have yet to discover epilepsy, eugenics, and female sterilization as chapters in the persecution of "immoral" women by "moral" male physicians.*

EPILEPSY, SCHIZOPHRENIA, AND SHOCK TREATMENT

As we saw, no sooner did psychiatrists begin to take an interest in epilepsy than they detected remarkable connections between having convulsions and being crazy. Although these alleged connections bore no relation to reality, that fact did not diminish the psychiatrists' influence on legislators, as the history of epileptic colonies and the sterilization of epileptics illustrates. It was enough that the psychiatrists were useful. It was not necessary that they also be right. In psychiatry (as in religion), the maxim "Seeing is believing" works better when it is inverted. When you are very powerful or very powerless, believing is seeing.

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* During the early decades of this century, unmarried women engaging in sexual activity, including masturbation, were defined as being guilty of "sexual immorality"; whereas male physicians performing surgical operations on women—without the patients' consent and aimed at unsexing them—were defined as paragons of ethical professionalism.

In the 1930s, the psychiatrists' perception of the relationship between convulsions and craziness reversed course. Instead of seeing epilepsy and insanity as fraternal twins, psychiatrists suddenly saw the two conditions as mutually antagonistic. The person who fabricated this falsehood, and devised the prototype of the diabolical "shock treatment" based on it, was the Hungarian psychiatrist Ladislaus von Meduna. Despite all the evidence to the contrary, most historians of psychiatry accept Meduna's rationalizations and repeat the mendacious legend of his "discovery" as if it were legitimate scientific history. For example, in their best-selling *History of Psychiatry*, Franz Alexander and Sheldon Selesnick write:

> In the late 1920's Ladislaus Joseph von Meduna (1896–1964) . . . observed that the glial tissue [in the brain] had thickened in epileptic patients. When he compared their brains with those of deceased schizophrenic patients he noted that the latter showed a deficiency of glial structure. On the basis of these findings . . . Meduna became convinced that schizophrenia and epilepsy were incompatible diseases and that a convulsive agent administered to schizophrenics would therefore cure them.[35]

Actually, Meduna *invented* the inverse relationship between the incidence of epilepsy and the incidence of schizophrenia to justify his use of metrazol. Moreover, like Meduna, Alexander and Selesnick are also guilty of conscious misrepresentation: They fail to mention that in his classic text on schizophrenia, Bleuler still claimed that there is a direct, rather than an inverse, relationship between schizophrenia and epilepsy. He wrote: "Many of our patients were first sent to us with the diagnosis of epilepsy, and were so labeled in the clinics."[36] Neither Meduna nor Alexander could possibly have been unfamiliar with Bleuler's classic text, the veritable bible on schizophrenia.

Iatrogenic Epilepsy as Psychiatric Treatment

The American Psychiatric Association's centennial celebratory volume, *One Hundred Years of Psychiatry* (1944), summarizes the official psychiatric version of the story of the origin of shock treatment as follows: "Somewhat as the treatment of general paralysis with tryparsamide paralleled malaria therapy . . . so was the treatment of schizophrenia by means of insulin shock paralleled by the use for the same purpose of pentamethylenetetrazol (metrazol), as a convulsive agent."[37]

The comparison is absurd. When the malaria treatment of paresis was introduced, neurosyphilis, unlike schizophrenia, was a clearly

defined disease, known to be due to infection with the trepona pallidum. As I see this period in psychiatric history, what happened was that, after the 1920s, schizophrenia gradually displaced paresis as the core "clinical entity" of psychiatry. There was a treatment for paresis, but not for schizophrenia. Naturally, psychiatrists wanted to be able to treat "it." But they had not the foggiest notion what this alleged disease was, much less what to do about it. At this point, coincidental advances in medicine once again determined the course of psychiatric quack-therapeutics.

In 1922, insulin was discovered and diabetes became a treatable disease. The early preparations of insulin were crude and made it especially difficult to regulate the diabetic's blood sugar level. Patients often received too little or too much insulin. The consequence of receiving too little insulin is hyperglycemia (too much glucose in the blood); if severe and protracted, this condition leads to diabetic coma and death. The consequence of receiving too much insulin is hypoglycemia (too little glucose in the blood). If mild, hypoglycemia causes light-headedness; if moderately severe, loss of consciousness and involuntary, epilepticlike movements, a condition called "insulin shock"; and if severe and protracted, brain damage and death.

Diabetes is a common disease. Many patients in mental hospitals had diabetes. Treated with insulin, some developed episodes of hypoglycemia, after which they appeared to be "better." Presto, a cure for schizophrenia. The psychiatrist who claimed to have made this discovery was Manfred Sakel, the place was Vienna, the year was 1933, and the name of the cure was "insulin shock treatment." The era of "modern somatic treatment in psychiatry" had arrived.

The trouble was that psychiatrists had no objective criteria or tests for diagnosing schizophrenia. One could never really be sure that a particular patient had the (alleged) disease or whether a particular treatment for it was effective. (This is still the case.) But now at least doctors knew how to give people artificial epilepsy. Before psychiatrists could subject nondiabetic persons to the risks of an insulin overdose, they had to find a reason and a justification for doing so. It was this need to rationalize inducing artificial convulsions in mental patients that generated the theory of epilepsy and schizophrenia as antagonistic conditions and justified giving schizophrenics seizures.

Insulin shock was an instant success. Insulin wards, with hundreds of people subjected to hypoglycemia, became a standard fixture of progressive mental hospitals. However, the procedure had two major drawbacks. It was dangerous for the patient, and time-consuming and troublesome for the staff. The search was on for a simpler and safer

method of inducing convulsions that did not require a laborious intervention to bring the patient out of the coma.* In 1935, Meduna, as I mentioned, observed that an overdose of metrazol by injection causes convulsions. Three years later, in Rome, Ugo Cerletti and Luigi Bini observed the slaughtering of pigs tranquilized by electric current passed through their brains. Thus were metrazol shock and electroconvulsive therapy (ECT) "discovered."[38]

Today, seizure disorders are no longer considered to be mental diseases. The term *epilepsy* is absent from the *Diagnostic and Statistical Manual of the American Psychiatric Association (DSM-III).*[39†] Yet, as if in an unconscious embrace of the old, Maudsleyan bracketing of epilepsy and madness, and despite the *Physicians' Desk Reference's* firm assertion that there are no psychiatric indications for the use of the antiseizure drug, Tegretol (carbamazepine),[40] psychiatrists claim that it is "effective in certain patients with behavioral dyscontrol, alcohol and sedative-hypnotic withdrawal, eating disorders, anxiety disorders, and post-traumatic stress disorder."[41] In short, psychiatrists now treat some mental patients with convulsions, others with anticonvulsant drugs, maintain that both are cures for mental diseases—and most people believe them.

THE EPILEPTIC COLONY IN HINDSIGHT

Galton, Maudsley, Lombroso, and their followers assembled the rhetorical building blocks necessary for scapegoating epileptics. The epileptic ceased to be a person and became instead the feared and persecuted carrier of an "epileptic neurosis," a term that conjured up images of unpredictable violence. "The consequence of this approach," observed Sir Dennis Hill, Emeritus Professor of Psychiatry at the University of London, "was the enormous stigma attached to the epileptic. . . . By destiny he was seen as mad and bad, liable to explosive and unpredictable attacks of violence and insanity, perhaps murder or at least moral depravity."[42] Hill failed to mention that this image of the epileptic justified depriving him of the rights, and excusing him from the responsibilities, of the citizen. Moreover, although Hill's account is correct, his attribution is not. It was not abstract destiny that made the epileptic

* Comatose patients had to be given glucose, by nasal tube, to bring them out of hypoglycemic shock.

† Evidently, psychiatrists now consider epilepsy a neurological disease, meriting no more special attention than, say, multiple sclerosis. Nevertheless, they continue to use the diagnosis of epilepsy to support a defendant's insanity plea.

appear as mad-and-bad; instead, it was psychiatrists who had cast him in that role (to which they now assign the "dangerous" mental patient).

The Myth of the Dangerous Epileptic

The antiepilepsy agitators, posturing as the compassionate protectors of the patient as well as the public, identified three distinct clinical states or phases that supposedly made the epileptic dangerous. The first phase, called the "aura," occurred just before the seizure and was characterized by visual, auditory, or olfactory sensations. The second, manifested by automatic behavior, occurred when the convulsive process did not progress to a grand mal seizure. And the third, called the "fugue," occurred following a grand mal seizure and was characterized by confusion and perhaps headache. During each phase, especially the last, the epileptic was believed to be liable to automatic, spontaneous violence. He was also thought to be dangerous because of his "epileptic personality," manifested by moral degeneration and a general lessening of the ability to exercise self-control.[43]

During the first half of this century, experts on epilepsy ceaselessly trumpeted the message that epileptics were dangerous unless confined in colonies. The medical directors of the Ohio Hospital for Epileptics and of the Craig Colony in New York both stoutly maintained "that epileptics were liable to attack others, frequently with deadly violence."[44] No contemporary medical or legal authority challenged that claim. The belief that any epileptic is susceptible to sudden, unpredictable, random violence, even homicide, thus became a scientific "fact." Ironically, the very existence of epileptic colonies, housing large numbers of epileptics in close quarters, demonstrated that this belief was a libelous falsehood. The inmates of epileptic colonies, as Janet Colaizzi states,

> . . . were neither sedated, restrained, nor closely supervised . . . . [They] lived in cottages housing twenty-five to a hundred residents . . . . The concentration of large numbers of epileptics did not precipitate the anticipated violence . . . . Despite this evidence to the contrary, medical superintendent William H. Pritchard of the Ohio Hospital . . . asserted [in his annual report for 1909], that the epileptic was "dangerous to others. During the mental disturbance which precedes, replaces, or follows an attack he frequently commits acts of violence or may be guilty of homicide or other revolting crimes for which he is not really responsible." William D. Sprattling, the first medical superintendent of the Craig Colony for Epileptics, also believed that the affliction was characterized by the "meanest violence." Yet the Craig Colony was as free from injuries as the Ohio Hospital.[45]

Few people then cared about the truth concerning epileptic *persons*, and perhaps even fewer now care about the truth concerning schizophrenic *persons*. The myth of the dangerous epileptic justified a popular social policy, and that was all that mattered.

Eventually, thanks to the efforts of conscientious neurologists, the epileptic was freed from psychiatric slavery. Sadly, the psychiatrist's disastrous encounter with the epileptic has not impaired his authority vis-à-vis the mental patient.

Contemporary Reassessments

The practice of confining epileptics in colonies lasted about half a century. While it was in vogue, people believed that epileptic colonies were progressive, therapeutic institutions, and that incarcerating epileptics in them was the best treatment for the patients. As late as 1949, Albert Deutsch, the widely admired journalist-historian of psychiatry, wrote:

> Among the major advantages of separate care for the epileptics in colonies are the following: The model colony provides the patient with an environment from which many of the dangers he faces in normal community life, as well as stresses injurious to his *mental health,* are eliminated . . . . It relieves society in some measure of a source of potential danger to public safety, since certain types of epileptic seizures are often accompanied by *homicidal impulses.*[46]

Similar falsehoods appeared in medical textbooks as well. The 1942 edition of *Cecil's Textbook of Medicine* (the standard text when I was a medical student) explained:

> Between attacks, the frank epileptic is usually a constitutional psychopath of the most disagreeable sort. . . . [Epileptics] are self-centered, unable to grasp the viewpoint of others, and childishly uncomprehending when forced to accept the opposite view. . . . Like manic-depressives and other psychotics, they are apt to adjust their depressions through this means [alcoholism], and are likewise easy victims of delirium tremens . . . . Institutional treatment properly directed along strictly modern lines affords the best possible means of handling [epileptics]. . . . In properly conducted institutions the epileptic . . . [is] taught to view his malady in its proper light, and learn to enjoy the inestimable advantages of outdoor life.[47]

Thirty years later, when one of my daughters was a medical student, gone were the "constitutional psychopathy" of the epileptic and the advantages of "institutional treatment." Passing over the long history of

the medical persecution of epileptics in discreet silence, physicians were now (1974) advised: "It is important to emphasize that the patient should be allowed to live as normal a life as possible . . . . Every effort should be made to keep children in school, and adults should be encouraged to work."[48] Since then, neurologists have gone even further, enjoining the physician to treat the person afflicted with epilepsy as an autonomous moral agent. A current textbook of neurology counsels: "It is important to remember that the goal of treatment is to assist patients in their efforts to overcome or at least adapt to the consequences of epilepsy. This means that treatment consists of things done in collaboration with patients rather than to or for them."[49]*

The differences between the neurological and psychiatric attitudes toward patients could hardly be more dramatic. The neurologist eschews dominating, much less coercing, patients suffering from *demonstrable* brain diseases. The psychiatrist, protesting more stridently than ever that mental patients suffer from brain diseases, clings to his power to impose unwanted interventions on nonconsenting nonpatients.

The modern medical history of epilepsy is full of ironies. Until relatively recently, when epilepsy "belonged" to psychiatry, psychiatrists emphasized the similarities between epilepsy and insanity. Today, when epilepsy no longer "belongs" to psychiatry, neurologists emphasize the differences between it and mental illness. The Epilepsy Foundation of America states: "Not many years ago, people with epilepsy . . . were sometimes treated as if they were insane. . . . No state allows commitment based solely on a person's epilepsy. . . . The EFA does not believe that epilepsy is a reason to take an individual's freedom away."[50] Will there ever come a day when the American Psychiatric Association makes the same statement about mental illness?

Believing is indeed seeing. The disease we call epilepsy is the same today as it was in 1893. But the beliefs of physicians about epilepsy and our social policies toward epileptics are very different indeed. Michael Trimble, an English authority on the relationship between epilepsy and psychiatry, comments: "By the 1950s, the view was that patients with epilepsy were exactly like anybody else and did not have any special susceptibility to psychopathology."[51] Unfortunately, not every expert on epilepsy was willing to relinquish his power. As late as 1960,

* If we were to replace "epilepsy" with "schizophrenia," the statement would read: "It is important to remember that the goal of treatment is to assist patients in their efforts to overcome or at least adapt to the consequences of schizophrenia. This means that treatment consists of things done in collaboration with patients rather than to or for them." Were a psychiatrist to write a textbook containing this paragraph, he would not a find a publisher for it.

William G. Lennox, the great Harvard authority on epilepsy, advocated killing certain epileptic children. He wrote:

> Epilepsy belongs to the specialty of neurology, but the need for custodial care of public patients has caused epilepsy to be bracketed with the psychoses in state departments of mental disease and in the American Psychiatric Association . . . "Thou shalt not kill" and "Be ye merciful." Can the two commands be combined in mercy killing? . . . Society systematically and cruelly kills its best members by the means called "war," and unmercifully prolongs the lives of its hopeless liabilities [idiotic epileptic children].[52]

While Lennox's brand of humanism no longer dominates medical-legal opinion concerning epilepsy, it remains firmly in control of such opinion concerning mental illness. When the doctor cannot cure the patient, he can still kill him and thus demonstrate his usefulness to the society he cravenly seeks to serve.*

A recent historical-political event merits notice here. In 1964, in the aftermath of the assassination of President Kennedy, there was a momentary revival of the psychiatric myth that epilepsy causes murder. Soon after Lee Harvey Oswald, Kennedy's alleged assassin, was taken into custody, he was assassinated by Jack Ruby. Celebrity lawyer Melvin Belli came to Ruby's defense, claiming that his client was not guilty because he suffered from an epileptic fugue when he shot Oswald. The defense failed, not because it was ridiculous—it was no more ridiculous than other insanity defenses that have succeeded—but largely because the American neurological profession united in refuting the claim. Belli was unable to find a single neurologist willing to testify for the defense. In an editorial in the *Journal of the American Medical Association*, Samuel Livingston, a prominent neurologist, warned:

> The "average reader" who has recently been exposed to the many newspaper articles relative to the Jack Ruby murder trial can understandably get the impression that epilepsy, murder, and crimes of passion are related. . . . I find no evidence of a higher rate of criminal activity among epileptics than among nonepileptics. . . . I certainly would not question the fact that an epileptic might kill, not because he has epilepsy, but because he is a human being.[53]

Similarly, a psychotic might kill, not because he is psychotic, but because he is human. A recent work on epilepsy aimed at the public reemphasizes precisely this point: "There is no scientific or medical

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* Unlike Nazi psychiatrists, democratic psychiatrists do not literally kill their patients. They kill them metaphorically, by incarcerating, shocking, and drugging them.

evidence that epilepsy causes violent behavior. . . . Of course, people with epilepsy sometimes become violent, just as people without epilepsy sometimes do."[54]

The Unlearned Lesson of Epilepsy

A hundred years ago, people found it intolerable to witness a person having a seizure, falling down, perhaps injuring himself. The public wanted to be spared this spectacle. To accommodate this desire, psychiatrists declared that epileptics needed to be confined in institutions. Today, people find it intolerable to witness a person talking to himself, depressed, contemplating suicide. The public wants to be spared this spectacle. To accommodate this desire, psychiatrists declare that (seriously ill) mental patients need to be confined in institutions.

That is not the official version of the story. It is considered unprofessional to acknowledge that doctors dispose of unwanted persons at the behest of society. The professionally correct perspective on the incarceration of epileptics and mental patients is that such policies serve the purpose of caring for sick and dependent person. As recently as 1944, Samuel W. Hamilton, psychiatric advisor to the Mental Hygiene Division of the United States Public Health Service, stated:

> Still another group that *needs* special institutional accommodation is the convulsive disorders. Some of these are found in mental hospitals. . . . Many more are cared for along with mental defectives. . . . The idea of the separation of buildings into many different groups was thoroughly carried out at the Craig Colony in western New York, to create for *appreciative* patients homes where they could be comfortable and have suitable occupation for life.[55]

The rhetoric of the therapeutic segregationist creating ghettos for "appreciative patients" sounds eerily similar to that of the racial segregationist creating ghettos for "appreciative Negroes." Hamilton was not satisfied with institutionalizing only epileptics and mental defectives (and, of course, the mentally ill). He added: "Since many alcoholic persons are unable to control themselves, the necessity of institutional control is obvious."[56*] The hypocrisy intrinsic to this rhetoric makes the predicament of the person caught in the web of

* In the United States, this tactic has been used to justify the segregation and coercive treatment of "sex offenders" (a category that used to include homosexuals) and "drug abusers" (including alcoholics).

therapeutic segregation even worse than that of the person caught in the web of punitive segregation. When we imprison a murderer, we do not say he *needs* to be deprived of liberty; we say he *deserves* to be punished. But when we imprison the epileptic or the mentally ill, we say he *needs* to be treated; we do not say that we don't like his behavior and want him to change it.

Finally, there is an important medical-political lesson in the history of epileptic colonies that we are eager to ignore. When the treatment of epilepsy was nonexistent or rudimentary, psychiatrists used the epileptic's alleged need for treatment as a pretext for confining him. Subsequently, as the physician's *pharmacological* power to treat epilepsy increased, his *political* power to deprive him of liberty, in the name of therapy, diminished and quickly disappeared. Let us apply this formula to psychiatry. If the psychiatrist has no effective remedies for mental illness, then he cannot appeal to treatment as a justification for depriving the patient of liberty. And if the psychiatrist does possess effective treatments for mental illness, then, as the lesson of epilepsy has shown, the patient's alleged need for treatment ceases to be a legitimate reason for depriving him of liberty.